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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,300	12/05/2003	Ashish Kundu	JP920030187US1	2149

7590 04/24/2007  
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EXAMINER
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NEWAY, SAMUEL G

ART UNIT	PAPER NUMBER
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2626

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/24/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/729,300	<b>Applicant(s)</b> KUNDU ET AL.	
	<b>Examiner</b> Samuel G. Neway	<b>Art Unit</b> 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This is in response to the Amendment filed on 08 February 2007.
2. Claims 1 – 33 are pending and are considered below.

### ***Claim Objections***

3. Claims 11, 22, and 33 are objected to because of the following informalities: they recite the limitation “said components of said application that may be requested by said user in the future”. There is insufficient antecedent basis for this limitation in the claims. The Examiner will read this limitation as ‘said components reachable from said requested component’.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 2, 13, and 24 recite the limitation “said response time analysis” in line 1.

There is insufficient antecedent basis for this limitation in the claim.

Also, the claims recite “given a maximum response time and starting from said current component, adding said times in a breadth first search order until a sum of the added times is less than said maximum response time”. It is unclear how any adding will be performed since if the given maximum response time is bigger than the current component adaptation time, this will satisfy the condition of stopping the addition before it even begins. Note that the Specification discloses “the times  $t_i$  are added in BFS

(Breadth First Search) order until the sum of the added times is less than, but as close as possible to, the maximum response time” (emphasis added). This shows that the addition is done until the sum reaches the maximum response time without actually exceeding it.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 11, 22, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smyth et al. (US Patent 7,028,261) in view of Huang et al. (US PGPub 2002/0133569).

As to claims 11, 22, and 33

Smyth discloses a method for incremental adaptation of a computer software application, said method comprising the steps of:

receiving a request for a component of said application from a device (col. 6, lines 55-59);

identifying, in response to said request, components reachable from said requested component (col. 7, lines 1-4 and 15-19), wherein the identifying process comprises graph analysis, statistical analysis, learning analysis, and response-time analysis (Figs 7-10, and related text), and wherein said learning analysis associates a

penalty with an incorrect prediction of said components reachable from said requested component (col. 9, lines 9-16. Note that  $P(C|A)$  has decreased from 0.5 to 0.488 which is a penalty associated with an incorrect prediction) and biases a probability of selection of successive components more towards recently occurring historical patterns than older patterns ("promote the [Ormonde] menu option to a higher position ..., col. 2, lines 61-67, Fig 2 and related text);

selecting components within a specified distance of said requested component from said identified reachable components ("max links", col. 7, lines 47-54);

but even if Smyth discloses adapting ("personalizing") the components to a particular user he does not specifically teach adapting said identified components for operation with said requesting device.

Huang discloses a method of adapting web pages for display on various client devices. Therefore, it would have been obvious to someone with ordinary skill in the art at the time the invention was made to combine the two said methods.

One would have been motivated to combine these two methods because as Smyth puts it in col. 1 lines 49-51 this will help "mobile users gain access to the right information at the right time, both quickly and easily..." These mobile users utilize devices that are limited in functionality and screen size.

8. Claims 1 – 10, 12 – 21, and 23 – 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smyth et al. (US Patent 7,028,261) in view of Huang et al. (US PGPub 2002/0133569) and further in view of O'Brien et al. (US Patent 6,055,569).

As to claims 1, 12, and 23

Art Unit: 2626

Smyth discloses a method for incremental adaptation of a computer software application, said method comprising the steps of:

receiving a request for a component of said application from a device operated by a user of said application (col. 6, lines 55-59);

identifying, in response to said request, components of said application that may be requested by said user in the future wherein the identifying process comprises associating a penalty with an incorrect prediction of said components reachable from said requested component (col. 9, lines 9-16. Note that  $P(C|A)$  has decreased from 0.5 to 0.488 which is a penalty associated with an incorrect prediction) and biases a probability of selection of successive components more towards recently occurring historical patterns than older patterns ("promote the [Ormonde] menu option to a higher position ..., col. 2, lines 61-67, Fig 2 and related text);

(col. 7, lines 1-4, and 15-19).

Although Smyth discloses adapting ("personalizing") the components to a particular user, he does not specifically teach adapting said identified components for operating with said requesting device.

Huang discloses a method of adapting web pages to be displayed on various client devices. Therefore, it would have been obvious to someone with ordinary skill in the art at the time the invention was made to combine the two said methods.

One would have been motivated to combine these two methods because as Smyth teaches in col. 1, lines 49-51, that this will help "mobile users gain access to the

right information at the right time, both quickly and easily..." These mobile users utilize devices that are limited in functionality and screen size.

Smyth and Huang do not explicitly disclose wherein only said requested and identified components are adapted for operation with said requesting device.

O'Brien discloses a method of identifying components (webpages) of an application that may be requested by a user in the future and downloading only said components into the user's web browser memory cache (abstract, col. 2, lines 15-16). Therefore it would have been obvious to one with ordinary skills in the art at the time the invention was made to adapted (download) only identified components. One would have been motivated to adapt only identified components because it would save time and memory space and speed up processing when only likely components are downloaded. It would also free up network bandwidth (O'Brien col.2, lines 14-17)

As to claims 3, 14, and 25

Smyth, Huang, and O'Brien disclose the method of claims 1, 12, and 23. Smyth further discloses adapting the components "subject to any restraints imposed by the site operator" (col. 7, lines 52-53) but he does not specifically site 'time' as one of the restraints. But he also says it is important that "mobile users gain access to the right information at the right time, both quickly and easily..." Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to restraint the component's adaptation within a specified maximum time period. One would have been motivated to restraint the component's adaptation within a specified maximum time period because in the computer art, and especially in component download, speed

Art Unit: 2626

is of the essence, and specifying a maximum time period will allow quick access to the component even if all components have not been completely adapted.

As to claims 4, 15, and 26

Smyth, Huang, and O'Brien disclose the method of claims 1, 12, and 23; Smyth further discloses the components of said application comprising Internet webpages (col. 6, lines 55-59).

As to claims 5, 16, and 27

Smyth, Huang, and O'Brien disclose the method of claims 1, 12, and 23; Smyth further discloses:

performing, in response to said request, a reachability analysis to identify components reachable from said requested component ("most probable links which the user wish to reach", col. 7, lines 47-54);

and wherein said step of identifying comprises selecting components from said identified reachable components that are within a specified distance of said requested component ("max links", col. 7, lines 47-54).

As to claims 6, 17, and 28

Smyth, Huang, and O'Brien disclose the method of claims 5, 16, and 27; Smyth further discloses wherein said specified distance comprises an integer value greater than or equal to one, said value representative of a number of transitions between two components of said application ("parent-child relationship", col. 8, lines 8-11, also figures 7-10).

As to claims 7, 18, and 29



Smyth, Huang, and O'Brien disclose the method of claims 1, 12, and 23; Smyth further discloses wherein said step of identifying comprises identifying components with a high probability of being requested based on historical request patterns relating to said application (col. 7, line 64 to col. 8, line 1).

As to claims 8, 19, and 30

Smyth, Huang, and O'Brien disclose the method of claims 7, 18, and 29 but Smyth does not disclose wherein said historical request patterns relate to requests from a substantially similar requesting device.

Huang discloses said historical request patterns relating to requests from a substantially similar requesting device (paragraph 6). It is obvious to take a component adapted to a certain device and use it with another substantially similar device in order to avoid performing the same task twice therefore increasing the speed with which the user downloads the component.

As to claims 9, 20, and 31

Smyth, Huang, and O'Brien disclose the method of claims 8, 19, and 30; Smyth further discloses wherein said components are identified taking previously incorrect identification of components that may be requested into account (col. 7, lines 5-6).

As to claims 10, 21, and 32

Smyth, Huang, and O'Brien disclose the method of claims 1, 12, and 23; Smyth further disclosed wherein said step of identifying comprises identifying the maximum number of components ("max links", col. 7, lines 47-54) neighboring said requested component that can be adapted within a specified period of time. Smyth further

Art Unit: 2626

discloses adapting the components "subject to any restraints imposed by the site operator " (col. 7, lines 52-53) but he does not specifically site 'time' as one of the restraints. But he also says it is important that "mobile users gain access to the right information at the right time, both quickly and easily..." Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to restraint the component's adaptation within a specified maximum time period. One would have been motivated to restraint the component's adaptation within a specified maximum time period because in the computer art, and especially in component download, speed is of the essence, and specifying a maximum time period will allow quick access to the component even if all components have not been completely adapted.

#### ***Response to Amendment***

9. The Objection to Claim 24 is withdrawn in view of Applicant's amendment.

#### ***Allowable Subject Matter***

10. Claims 2, 13, and 24 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

11. Applicant's arguments filed on 08 February 2007 have been fully considered but they are not persuasive.

Applicant argues that there is no teaching in Smyth, Huang, or O'Brien in regards to a penalty associated with an incorrect prediction. However, Smyth discloses decreasing or increasing the probability of a given page depending on a current request (col. 9, lines 9-16. Note that  $P(C|A)$  has decreased from 0.5 to 0.488 which is a penalty associated with an incorrect prediction).

### ***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel G. Neway whose telephone number is 571-270-

Art Unit: 2626

1058. The examiner can normally be reached on Monday - Friday 8:30AM - 5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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